

REMARKS

Claims 1-4 are all the claims pending in the application. By way of this Amendment, Applicants have amended claims 1 and 2 and added new dependent claim 5. For the following reasons, it is submitted that the application is in condition for allowance.

Turning to the substance of the Office Action, claims 1-4 have been rejected on reference grounds. In particular, claim 1 has been rejected under § 102(b) as being anticipated by Sung (U.S. Patent No. 4,380,909). Additionally, claims 1-3 have been rejected under § 102(e) as being anticipated by Hoshino, et al. (U.S. Patent No. 6,651,457).¹ Finally, the Examiner has rejected claim 4 under § 103 as being unpatentable over Hoshino, et al. For the following reasons, Applicants respectfully traverse this rejection.

The invention is directed to an absorption chiller-heater. As recited in claim 1, the chiller-heater includes an exhaust gas flow path 15; an exhaust gas fired regenerator 1 provided on the exhaust gas flow path so as to be heated by the exhaust gas; a cooling medium solution passage (25) supplying a first solution of a cooling medium which is collected by an absorber (9) to the exhaust gas fired regenerator; and an exhaust gas heat collector (51) provided on the cooling medium solution passage for carrying out heat exchange between the first solution and the exhaust gas.

In order to more clearly claim the invention, Applicants have amended claim 1 to recite that the exhaust gas heat collector is provided on the cooling medium solution passage and the

¹ It appears that Hoshino, et al. is actually prior art under § 102(a).

exhaust gas flow path for carrying out heat exchange between the first solution and the exhaust gas. For the following reasons, Applicants respectfully submit the prior art does not teach or suggest the invention recited in claim 1.

Beginning with the rejection based on Sung, the Examiner contends that element 83, shown in Figure 1 of Sung, corresponds to the claimed exhaust gas flow path. This is incorrect. Instead, reference numeral 83 is the heater coil of radiator 13. On this basis, Applicants submit that the Examiner's rejection is improper.

In addition, Sung fails to teach or suggest the claimed exhaust gas heat collector. In the rejection, the Examiner contends that heat exchanger 42 corresponds to the exhaust gas heat collector. However, the heat exchanger 42 does not collect heat from the exhaust gas. Instead, the exhaust gas which flows through coil 33 is used to supply heat to the generator 32 which the Examiner analogizes to the claimed exhaust gas fire regenerator of the present invention.

In Sung, the exhaust gas is utilized to heat the coil 33. After passing the coil 22, the exhaust gas is discharged outside through the passages 43, 44. Therefore, in Sung, there is no exhaust gas heat corrector. In other words, a diluted solution is heated and boiled in the coil 33 through which the exhaust gas flows. As a result, a concentrated solution is obtained. Namely, the coil 33 functions similarly to the exhaust gas fired regenerator of the claimed invention.

Finally, another important distinction between Sung and the present invention is that the exhaust gas heat collector is provided both on the cooling medium solution passage as well as on the exhaust gas flow path, as illustrated in Figure 1 of the application. In contrast, the heat exchanger 42, which the Examiner analogizes to the claimed exhaust gas heat collector, is not

provided on the exhaust gas flow path. In view of the foregoing, it is respectfully submitted that Sung does not teach or suggest that which is recited in claim 1. Thus, it is submitted that claim 1 patentably distinguishes over Sung.

Turning to the rejection based on Hoshino, et al., with reference to Figure 1, the Examiner contends that first space 7a of exhaust heat regenerator 7 corresponds to the claimed exhaust gas fired heat regenerator and that the second space 7b corresponds to the claimed exhaust gas heat collector. However, the second space 7b does not carry out heat exchange between the exhaust gas and the solution supplied by the absorber to the exhaust gas fire regenerator. More specifically, claim 1 recites “a cooling medium solution passage supplying a first solution of a cooling medium which is collected by an absorber to said exhaust gas fired regenerator.” In the rejection, the Examiner states that the cooling medium solution passage of Hoshino, et al. corresponds to the piping extending from the absorber 6 to pump 10 and further to low temperature heat exchanger 8 and onto the heat exchanger 7. Since the Examiner contends that the first space 7a corresponds to the claimed exhaust gas fired regenerator, it must be that the Examiner considers the cooling medium solution passage to be the passage which feeds the first space 7a. However, as noted above, claim 1 requires that the exhaust gas collector be provided on the cooling medium solution passage. The second space 7b is not disposed along this passage. On the other hand, in the event that the Examiner asserts that the passage includes the pipe extending between heat exchangers 8 and 9 which feeds the second space 7b, this passage does not supply a cooling medium to the exhaust gas fired regenerator which the Examiner analogizes to the first space 7a.

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Based on the foregoing, it is respectfully submitted that claim 1 patentably distinguish over the cited art. With respect to the dependent claims, they are patentable for the reasons discussed above in regard to claim 1. Further, the prior art does not teach or suggest the limitations contained therein, including new claim 5.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

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